

### ABSTRACT OF THE DISCLOSURE

A method and apparatus for block quantization for color halftoning is described. In one embodiment, the method comprises dividing an input image and an output image into blocks, wherein each block in the output image corresponds to one block in the input image. The method also includes dividing each block into subblocks if an edge exists in said each block, calculating a color average of each input block, and calculating a set of output colors for each block in the output image to match the color average of its corresponding block in the input image.